Kick-off for the prototype – Cree GmbH builds first LifeCycle Tower

In September 2011, construction on LCT ONE, the first unencapsulated eight-storey timber hybrid building, will start in Dornbirn, Austria. What started in 2009 with a research project is now becoming reality: Cree GmbH's LifeCycle Tower (LCT) – the innovative concept for high-rise timber hybrid buildings – enters the construction phase.

The groundbreaking ceremony for the world's first LifeCycle Tower – LCT ONE – will take place in the middle of September in Dornbirn, Austria. Cree GmbH, the Rhomberg Group subsidiary specifically established to create the LifeCycle Tower, is set to demonstrate the feasibility of the system for sustainable urban design projects and present the advantages of this building concept (resource and energy efficiency, 90% improvement in CO2 emissions, 50% reduction in construction time, industrial production of components, etc.).

The essential difference of this timber hybrid building compared to other projects is that the loadbearing elements are not lined. The unencapsulated, i.e. unlined, timber structure provides a direct experience of wood as a construction material in the interior, it preserves resources and is also an important part of the fire safety concept. Another difference is that although the LifeCycle Tower consists largely of timber, it is only used in places where this makes sense. This means the amount of timber used makes the most efficient use of resources while achieving maximum functionality.

The LifeCycle Tower has no loadbearing partition walls and therefore allows great flexibility in usage. The structural elements can be arranged and re-arranged to suit changing needs. Therefore, the LCT can be used for a wide variety of purposes, ranging from a hotel to apartments and offices, or a combination of different functions under one roof.

According to Mag. Michael Zangerl, Head of Organisation, Marketing & Finances at Cree GmbH, this prototype development which is supported by FFG (The Austrian Research Grant Agency) and bmvit (The Austrian Federal Ministry for Transport, Innovation and Technology) offers enormous opportunities, particularly for urban developments, since the population of cities will substantially increase in years to come and today's construction industry does not offer a solution for this problem with its conventionally produced construction systems.